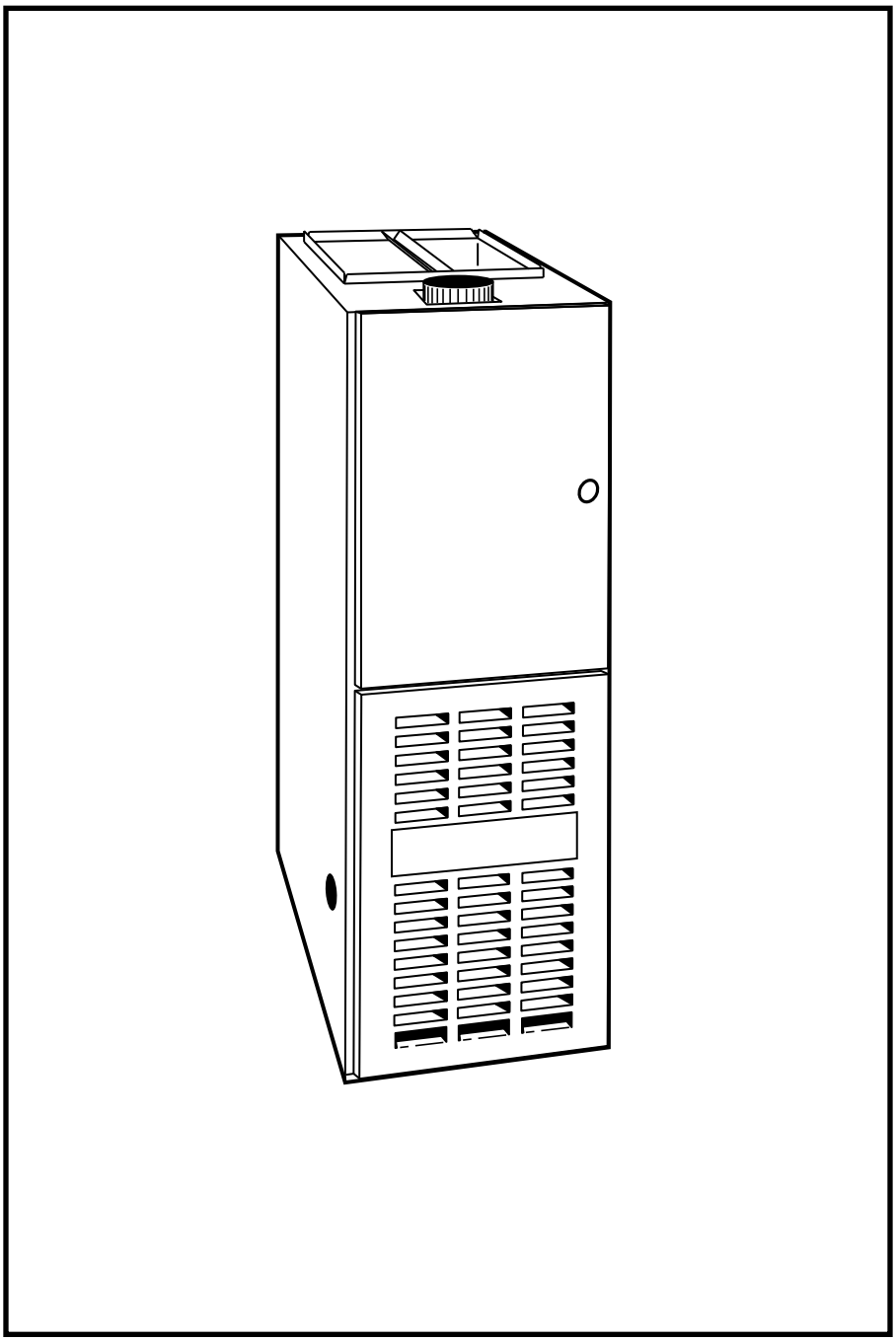
Carrier®
HEATING & COOLING

Product Data

58DXT

WeatherMaker® 8000 Two-Speed High-Efficiency Downflow Gas Furnace

Input Capacities:
60,000 thru 120,000 Btuh



Two-Speed Heating for High-Efficiency Gas Furnaces

Carrier continues to lead the industry with our new WeatherMaker® 8000 Two-Speed Downflow Induced-Combustion Gas Furnace. Our furnace operates at 2 different speeds which provide outstanding home comfort. This furnace is built with the most advanced manufacturing equipment processes and technology available in order to ensure top quality. Packed into the cabinet are the industry's foremost dealer and homeowner features. The WeatherMaker 8000 Two-Speed is the latest addition to Carrier's list of product leadership in the gas furnace industry.

These 2-speed, induced-combustion, gas-fired furnaces offer not only low installation costs, but fuel economy as well—delivering an Annual Fuel Utilization Efficiency (AFUE) rating of 80.0%. The WeatherMaker 8000 Two-Speed utilizes a hot surface, silicon carbide ignition system to save energy and increase reliability.

Our engineers have incorporated the patented S-shaped 4-pass heat exchanger, a soft mount 2-speed inducer assembly, and a 2-stage slow-opening gas valve to minimize sound level. The Super-S heat exchanger provides better heat transfer while enabling us to make a compact furnace, providing more room in closet, utility room, and short basement installations. The heat exchanger is constructed of aluminized steel and is backed by a 20-year Limited Warranty.

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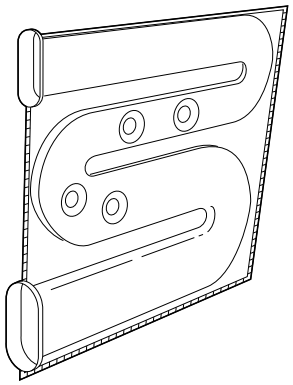
The WeatherMaker 8000 Two-Speed will meet your home heating requirements. This furnace family provides a wide range of heating capacities. All models are GAMA efficiency rating certified and certified for use in California Air Quality Management Districts.

The superior attention to cabinet detail is obvious. The WeatherMaker 8000 Two-Speed features 1-piece, seamless, wrap-around construction. There are no spot welds on the exterior surfaces of the furnace. There is also double protection for the cabinet. First, a galvanized steel substrate provides resistance to rusting. Then the cabinet is constructed of prepainted steel—the same high-quality finish found on refrigerators and dishwashers.

Perhaps the most advanced feature of the WeatherMaker 8000 Two-Speed is the state-of-the-art micro-processor control center which shows true leadership in furnace technology. The simplified electronics in this control provide high reliability while performing many of the functions of older, electro-mechanical devices in other furnaces. The control provides blower delay at start-up and shutdown, while monitoring furnace operations and functions. In the unlikely event of a service call, in less than a minute, the technician can use the components-test feature to determine if a major component has failed. The control will check itself, then the low and high inducer speeds, silicon carbide ignition, low-, medium- and high-speed blower. Another benefit of the control is the 3-amp fuse that protects the transformer and control. Our control is backed by a 3-year Limited Warranty.

Best of all, the WeatherMaker 8000 Two-Speed is easily installed. Many features make this furnace the easy choice for replacement or new construction markets. Left and right connections are provided for gas and electrical supplies. An easy-to-remove bottom, blower speed selection, low-voltage, humidifier, and electronic air cleaner terminal connections are among other features. This furnace is designed for downflow only applications.



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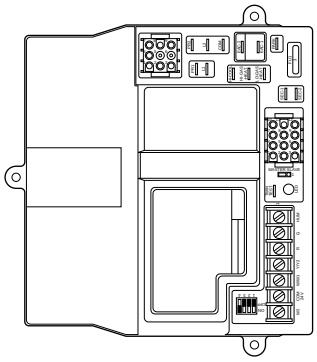
HEAT EXCHANGER



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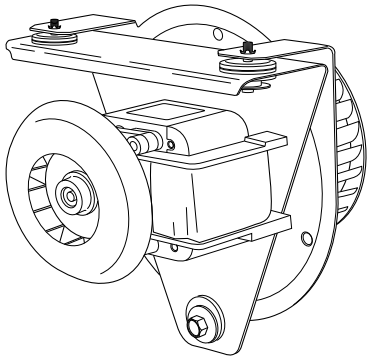
2-SPEED FURNACE CONTROL



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2-SPEED INDUCER BLOWER

MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailers.

Model number nomenclature

58DXT **060** **100** **12**

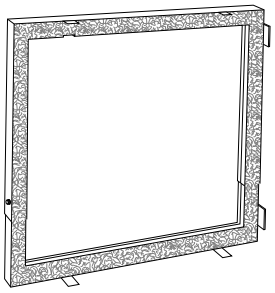
Downflow/Horizontal Induced-Combustion Gas-Fired Furnace

Input Capacity
060 — 63,000 Btuh
080 — 84,000 Btuh
100 — 105,000 Btuh
120 — 123,000 Btuh

Series Number

Cooling Size (Airflow)
(400 CFM per 12,000 Btuh)
12 — 1200 CFM
16 — 1500 CFM
20 — 2000 CFM

Carrier accessories*



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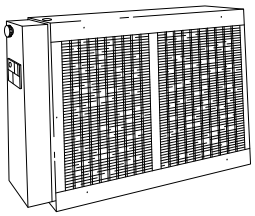
DOWNFLOW SUBBASE

One base fits all furnace sizes. The base is designed to be installed between the furnace or coil box and a combustible floor. It is A.G.A. design certified for use with Carrier 58DXT furnaces.



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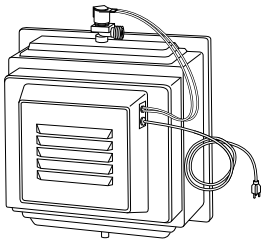
MODEL 31KAX ELECTRONIC AIR CLEANER

Cleans the air of smoke, dirt, and many pollens commonly found. Saves on decorating and cleaning expenses.



A91365

MODEL 49FH HUMIDIFIER

By adding moisture to winter-dry air, a Carrier humidifier can often improve comfort and keep furniture, rugs, and draperies in better condition. Moisturizing household air also helps to retain normal body heat and provides comfort at lower temperatures.

UNIT SIZE	060-12	080-16	100-20	120-20
ELECTRONIC AIR CLEANER	Model 31KAX			
HUMIDIFIER	Model 49FH			
THERMOSTAT (1 or 2 Stage)	See Thermostat Master Price Pages			
DOWNFLOW SUBBASE	KGASB0201ALL			
HIGH-ALTITUDE PRESSURE SWITCH KIT†	KGAHA5601PSW			
GAS CONVERSION KIT—NATURAL-TO-PROPANE	KGANP24012SP			
PROPANE-TO-NATURAL	KGAPN20012SP			

*Factory authorized and field installed. Gas conversion kits are A.G.A. recognized.
†5500 ft and higher above sea level.

Physical data

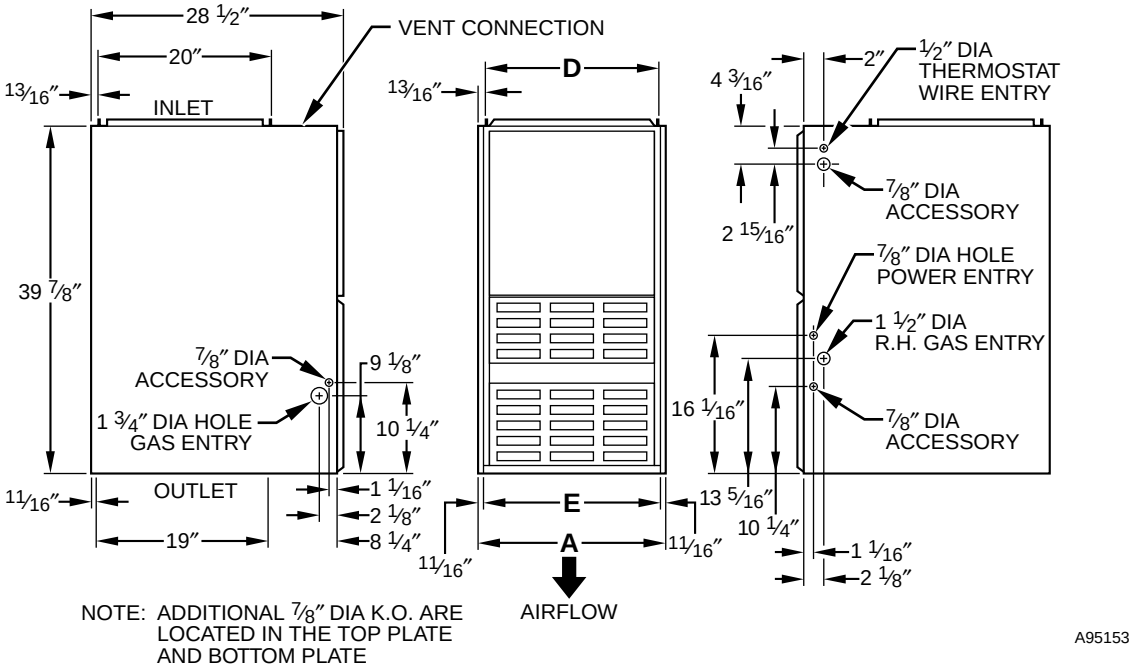
UNIT SIZE		060-12	080-16	100-20	120-20
OUTPUT CAPACITY (BTUH) High/Low†	Nonweatherized ICS	51,000/33,000	68,000/44,000	85,000/55,000	99,000/65,000
INPUT BTUH*	High/Low	63,000/40,500	84,000/54,000	105,000/67,500	123,000/81,000
SHIPPING WEIGHT (Lb)		145	154	181	192
CERTIFIED TEMP RISE RANGE (°F)	High Stage	30—60	25—55	35—65	45—75
	Low Stage	15—45	15—45	20—50	25—55
CERTIFIED EXT STATIC PRESSURE	Heating	0.10	0.15	0.20	0.20
	Cooling	0.50	0.50	0.50	0.50
AIRFLOW CFM	Heating High/Low	1200/1020	1355/1170	1735/1500	1690/1480
	Cooling	1300	1580	1950	2055
SECONDARY LIMIT CONTROL		Manual Reset			
LIMIT CONTROL		SPST (Auto-Reset)			
HEATING BLOWER CONTROL		Solid-State Time Operation			
INDUCER		2-Speed			
BURNERS (Monoport)		3	4	5	6
GAS CONNECTION SIZE		1/2-in. NPT			
GAS VALVE (Redundant) Manufacturer		White-Rodgers			
Minimum Inlet Pressure (In. wc)		4.5 (Natural Gas)			
Maximum Inlet Pressure (In. wc)		13.6 (Natural Gas)			
MAIN BURNER IGNITER		Hot Surface			

* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4% for each 1000 ft above sea level. Refer to National Fuel Gas Code Table 10-2. In Canada, derate the unit 10% for elevations 2000 ft to 4500 ft above sea level.

† Tentative capacity in accordance with U.S. Government DOE test procedures.

ICS—Isolated Combustion System

Dimensions



NOTE: ADDITIONAL 7/8″ DIA K.O. ARE LOCATED IN THE TOP PLATE AND BOTTOM PLATE

A95153

DIMENSIONS (In.)

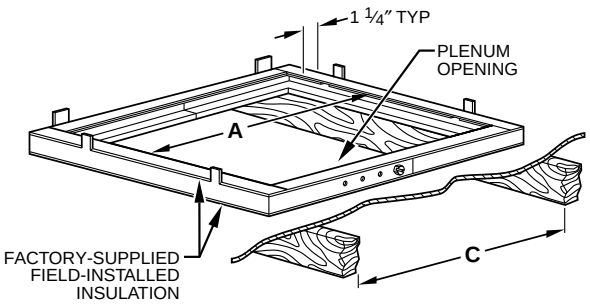
UNIT SIZE	A	D	E	VENT CONN	SHIP. WT LB
060-12	14-3/16	12-9/16	12-11/16	4	124
080-16	17-1/2	15-7/8	16	4	154
100-20	21	19-3/8	19-1/2	4	181
120-20	24-1/2	22-7/8	23	5	192

Accessory downflow subbase

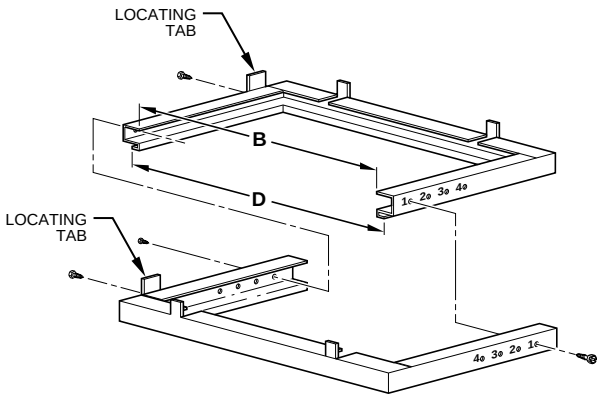
DIMENSIONAL DATA (In.)

FURNACE WIDTH	PLENUM OPENING*		FRAMED FLOOR HOLE		HOLE NO. FOR WIDTH ADJUSTMENT
	A	B	C	D	
14-3/16	11-13/16	19	13-7/16	20-3/8	4
11-1/2	15-1/8	19	16-3/4	20-3/8	3
21	18-5/8	19	20-1/4	20-3/8	2
24-1/2	22-1/8	19	23-3/4	20-3/8	1

* The plenum should be constructed 1/4 in. smaller in width and depth than the plenum dimensions shown above.



Assembled A88206



Disassembled A88207

CLEARANCES (In.)

DOWNFLOW (Alcove or Closet)		060 and 080	100 and 120
Sides —	Single-Wall Vent	1*	0
	Type B-1 Double-Wall Vent	0	0
Back		0	0
Top		1	1
Front† —	Single-Wall Vent	6	6
	Type B-1 Double-Wall Vent	3	3
Vent —	Single-Wall Vent	6	6
	Type B-1 Double-Wall Vent	1	1

* For casing widths larger than 14-1/4 in., 0 clearance may be used.
† 18-in. clearance is required for alcove.

NOTES:
1. Provide 30-in. front clearance for servicing. An open door in front of the furnace can meet this requirement.
2. A minimum clearance of 3 in. must be provided in front of the furnace for combustion air and proper operation.

Performance data

UNIT SIZE	060-12	080-16	100-20	120-20
DIRECT-DRIVE MOTOR HP (PSC)	1/3	1/2	3/4	3/4
MOTOR FULL LOAD AMPS	5.8	7.9	11.1	11.1
RPM (Nominal)—SPEEDS	1075—4	1075—4	1075—4	1075—4
BLOWER WHEEL DIAMETER x WIDTH (In.)	10 x 6	10 x 8	11 x 10	11 x 10
FILTER SIZE (In.)—(WASHABLE, SUPPLIED)	(2) 14 x 20 x 1		(2) 16 x 20 x 1	

PSC—Permanent Split Capacitor

EFFICIENCY

UNIT SIZE		060-12	080-16	100-20	120-20
CAPACITY BTUH*	High Stage	51,000	68,000	85,000	99,000
	Low Stage	33,000	44,000	55,000	65,000
AFUE %* Nonweatherized ICS		80.0	80.0	80.0	80.0

* Tentative capacity and AFUE in accordance with U.S. Government DOE test procedures.
ICS—Isolated Combustion System

AIR DELIVERY (CFM)

UNIT SIZE	SPEED	EXTERNAL STATIC PRESSURE (In. wc)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
060-12	High	—	1490	1425	1365	1300	1240	1175	1100
	Med-High	—	1345	1300	1255	1200	1140	1075	1000
	Med-Low	1200	1180	1140	1100	1060	1015	960	895
	Low	1020	1000	985	950	915	880	835	780
080-16	High	1855	1765	1710	1665	1580	1570	1410	1310
	Med-High	1595	1570	1530	1485	1410	1355	1280	1200
	Med-Low	1355	1345	1305	1270	1220	1170	1110	1025
	Low	1170	1170	1140	1110	1075	1025	965	890
100-20	High	2235	2185	2110	2030	1950	1835	1700	1540
	Med-High	1995	1970	1915	1845	1765	1680	1545	1415
	Med-Low	1735	1735	1675	1625	1565	1480	1370	1265
	Low	1510	1500	1485	1455	1400	1320	1230	1130
120-20	High	—	2250	2190	2130	2055	1960	1875	1760
	Med-High	—	2000	1960	1910	1850	1785	1710	1615
	Med-Low	1700	1690	1670	1650	1610	1560	1490	1435
	Low	1480	1480	1480	1460	1430	1380	1320	1255

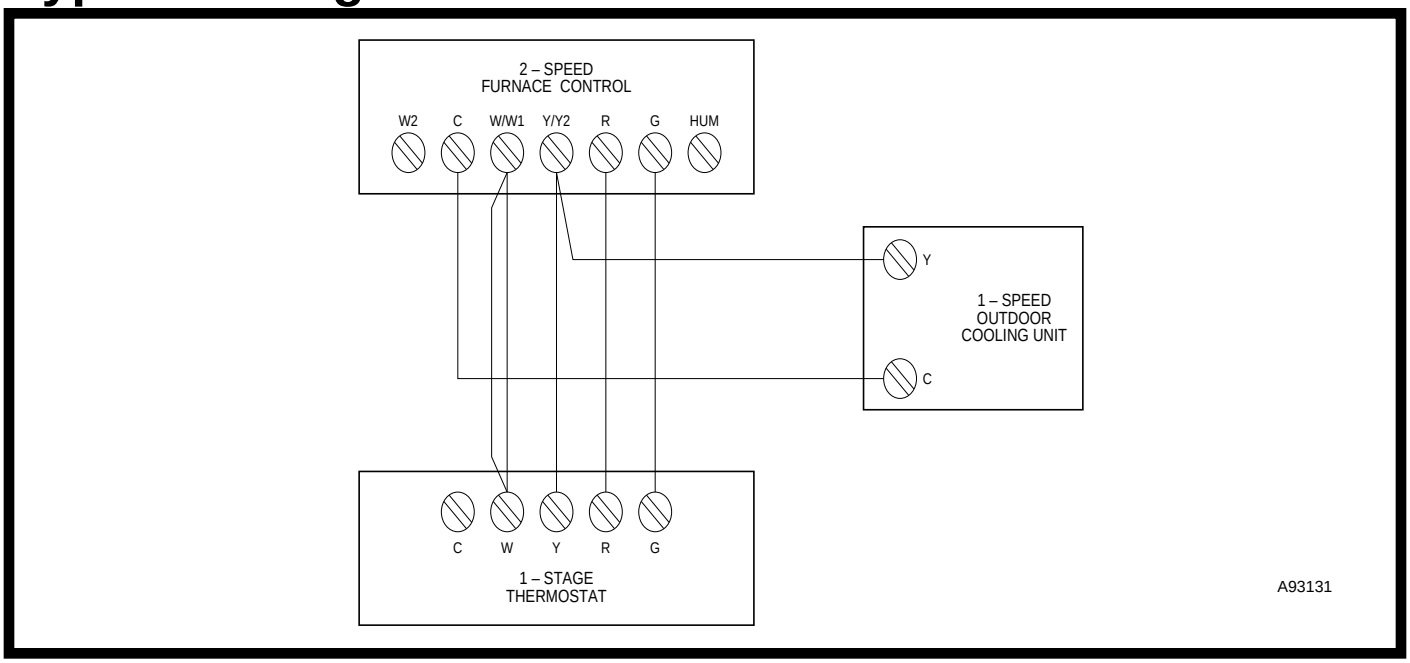
—Indicates unstable operating conditions.

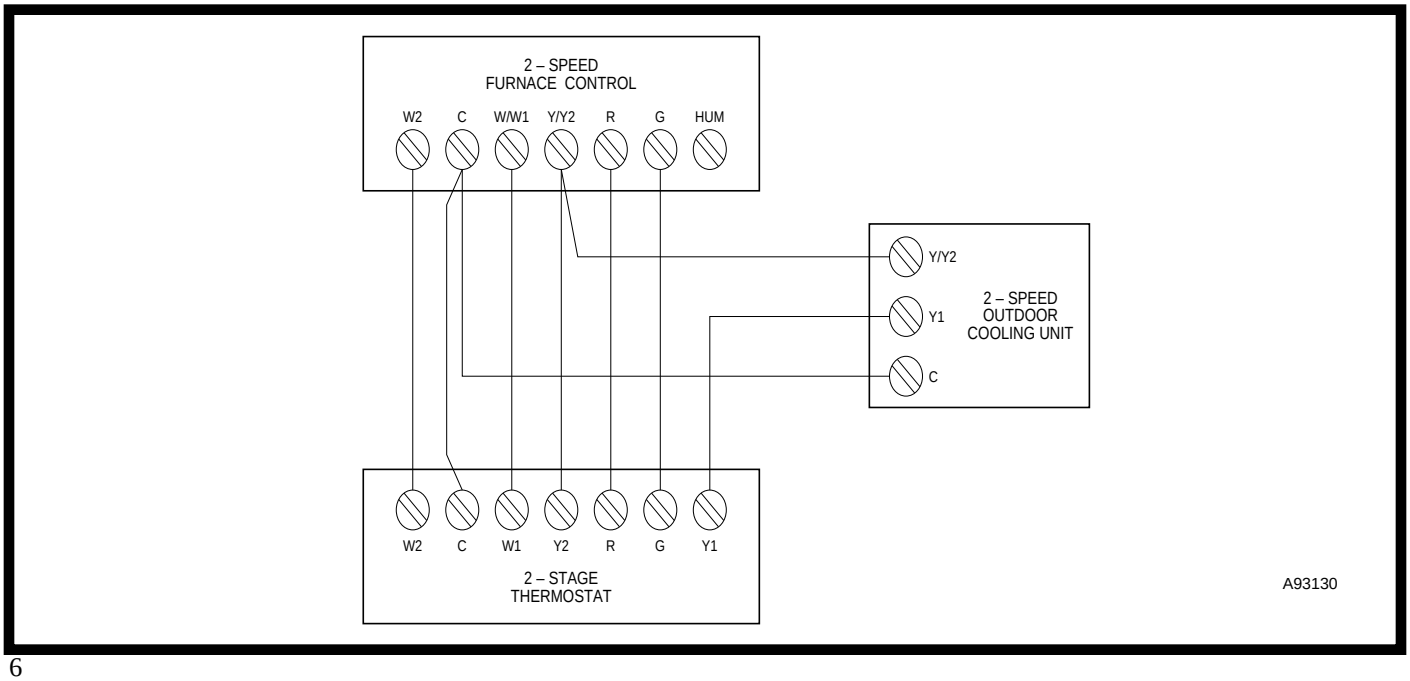
Electrical data

UNIT SIZE		060-12	080-16	100-20	120-20
UNIT VOLTS—HERTZ—PHASE		115—60—1			
MINIMUM WIRE SIZE		14	14	12	12
MAXIMUM WIRE LENGTH (Ft)*		33	28	33	31
MAXIMUM UNIT AMPS		11.0	13.2	17.2	18.4
OPERATING VOLTAGE RANGE (Min—Max)†		104—127			
MAXIMUM FUSE SIZE OR HACR-TYPE CKT BRK (Amps)‡		15	15	20	20
TRANSFORMER (24v)		40va			
EXTERNAL CONTROL POWER AVAILABLE	Heating	19va			
	Cooling	35va			
AIR CONDITIONING BLOWER RELAY		Standard			

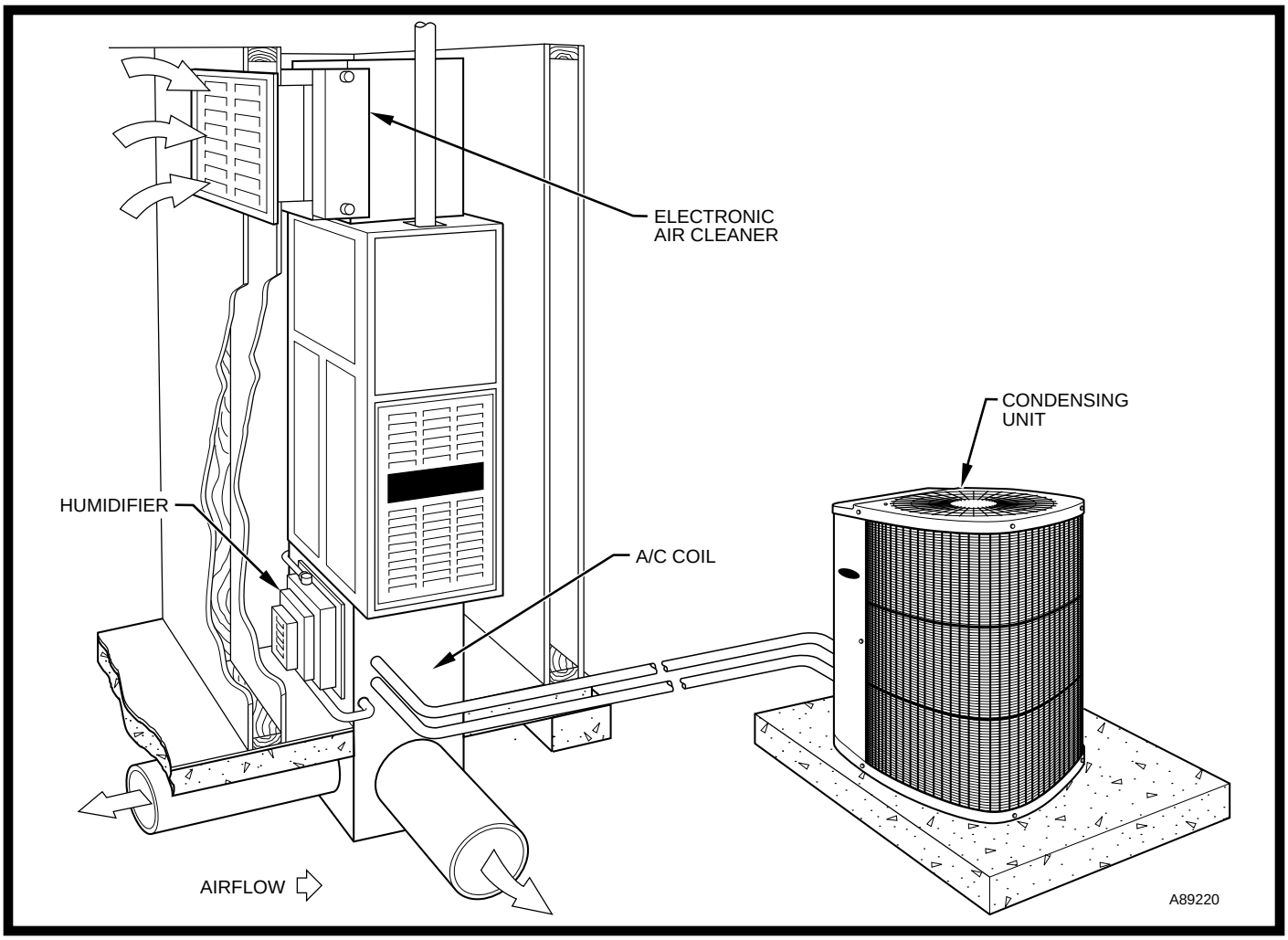
* Length shown is as measured 1 way along wire path between unit and service panel for maximum 2% voltage drop.
† Permissible limits of the voltage range at which the unit will operate satisfactorily.
‡ Time-delay fuse is recommended.

Typical wiring schematic





Typical installation



SERVICE TRAINING

Packaged Service Training programs are an excellent way to increase your knowledge of the equipment discussed in this manual, including:

- Unit Familiarization
- Maintenance
- Installation Overview
- Operating Sequence

A large selection of product, theory, and skills programs is available, using popular video-based formats and materials. All include video and/or slides, plus companion book.

Classroom Service Training plus "hands-on" the products in our labs can mean increased confidence that really pays dividends in faster troubleshooting, fewer callbacks. Course descriptions and schedules are in our catalog.

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